



MURSATT CHEMICALS LIMITED
11 REGALCREST COURT
WOODBIDGE; ONTARIO, CANADA; L4L 8P3
(905)-850-8444

PRODUCT: CHLOR-OUT

CODE: MUR0005

Section 01: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURER/SUPPLIER..... MURSATT CHEMICALS LIMITED
11 REGALCREST COURT
WOODBIDGE, ONTARIO
CANADA
L4L 8P3
PREPARED BY..... REGULATORY AFFAIRS
PREPARATION DATE..... Mar28/08
PRODUCT NAME..... CHLOR-OUT
PRODUCT CODE..... MUR0005
CHEMICAL FORMULA..... SEE SECTION 02.
MOLECULAR WEIGHT..... N.AV.
CHEMICAL FAMILY..... SODIUM SALT, INORGANIC REDUCING AGENTS.
MATERIAL USE..... REDUCING AGENT FOR SPA WATER.
EMERGENCY PHONE NO..... CANUTEC (613)-996-6666.

Section 02: COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredients	%	Exposure Limit	C.A.S.#	LD/50, Route, Species	LC/50 Route, Species
SODIUM SULPHITE	60-100	N.AV.	7757-83-7	ORAL, APPROX. 2610 MG/KG (RAT)	>5.5 MG/L/4H (RAT)

Section 03: HAZARDS IDENTIFICATION

ROUTE OF ENTRY:
SKIN CONTACT..... SEE BELOW.
SKIN ABSORPTION..... N.AV.
EYE CONTACT..... SEE SECTION 11.
INHALATION..... MAY CAUSE SENSITIZATION BY INHALATION.
INGESTION..... SEE SECTION 02 FOR LD50.
EFFECTS OF ACUTE EXPOSURE..... INHALATION-RISK TEST (IRT): NO MORTALITY WITHIN 8 HOURS AS SHOWN IN
ANIMAL STUDIES. THE INHALATION OF A HIGHLY SATURATED VAPOR-AIR
MIXTURE REPRESENTS NO ACUTE HAZARD. .
EFFECTS OF CHRONIC EXPOSURE..... N.AV.
INHALATION, CHRONIC..... N.AV.
SENSITIZATION..... CAPABLE OF CAUSING RESPIRATORY OR SKIN SENSITISATION.

Section 04: FIRST AID MEASURES

EYE CONTACT..... IMMEDIATELY WASH AFFECTED EYES FOR AT LEAST 15 MINUTES UNDER
RUNNING WATER WITH EYELIDS HELD OPEN, CONSULT AN EYE SPECIALIST. .
SKIN CONTACT..... REMOVE CONTAMINATED CLOTHING. WASH THOROUGHLY WITH SOAP AND
WATER.
INGESTION..... RINSE MOUTH AND THEN DRINK PLENTY OF WATER.
INHALATION..... IF DIFFICULTIES OCCUR AFTER DUST HAS BEEN INHALED, REMOVE TO FRESH
AIR AND SEEK MEDICAL ATTENTION.
NOTES TO PHYSICIAN..... HAZARDS: RISK OF SULFUR DIOXIDE FORMATION BY REACTION WITH GASTRIC
ACID AFTER SWALLOWING.

Section 05: FIRE FIGHTING MEASURES

T.D.G. FLAM. CLASS..... NON FLAMMABLE.
FLAMMABILITY..... NON FLAMMABLE.
IF YES, UNDER WHICH CONDITIONS?
EXTINGUISHING MEDIA..... WATER IN COPIOUS QUANTITIES, DRY EXTINGUISHING MEDIA, FOAM.
SPECIAL PROCEDURES..... WEAR A SELF-CONTAINED BREATHING APPARATUS. CONTAMINATED
EXTINGUISHING WATER MUST BE DISPOSED OF IN ACCORDANCE WITH OFFICIAL
REGULATIONS.
FLASH POINT (C), METHOD..... N.AP.
AUTO IGNITION TEMPERATURE..... N.AP.
UPPER FLAMMABLE LIMIT (% BY VOL.)... N.AP.
LOWER FLAMMABLE LIMIT (% BY VOL.)... N.AP.
EXPLOSION DATA..... N.AP.
EXPLOSIVE POWER..... N.AP.
RATE OF BURNING..... N.AP.
SENSITIVITY TO STATIC DISCHARGE..... N.AP.
SENSITIVITY TO IMPACT..... N.AP.

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Section 05: FIRE FIGHTING MEASURES

HAZARDOUS COMBUSTION PRODUCTS.. SULPHUR DIOXIDE, THE SUBSTANCES/GROUPS OF SUBSTANCES MENTIONED CAN BE RELEASED IF THE PRODUCT IS INVOLVED IN A FIRE. .

Section 06: ACCIDENTAL RELEASE MEASURES

LEAK/SPILL..... AVOID DUST FORMATION. ENSURE ADEQUATE VENTILATION. DO NOT EMPTY INTO DRAINS. FOR SMALL AMOUNTS: SWEEP/SHOVEL UP. DISPOSE OF ABSORBED MATERIAL IN ACCORDANCE WITH REGULATIONS. FOR LARGE AMOUNTS: SWEEP/SHOVEL UP. DISPOSE OF ABSORBED MATERIAL IN ACCORDANCE WITH REGULATIONS.

Section 07: HANDLING AND STORAGE

HANDLING PROCEDURES AND AVOID DUST FORMATION. THE SUBSTANCE/PRODUCT IS NON-COMBUSTIBLE.
EQUIPMENT
STORAGE NEEDS..... KEEP IN A COOL PLACE. KEEP CONTAINER DRY. KEEP CONTAINER IN A WELL-VENTILATED PLACE. GENERAL: SEGREGATE FROM ACIDS AND ACID FORMING SUBSTANCES. SEGREGATE FROM OXIDANTS.

Section 08: EXPOSURE CONTROLS/PERSONAL PROTECTION

GLOVES/ TYPE..... CHEMICAL RESISTANT PROTECTIVE GLOVES, CHLOROPRENE RUBBER (NEOPRENE), NITRILE RUBBER (BUNA N), POLYVINYLCHLORIDE (PYLOX). .
RESPIRATORY/TYPE..... BREATHING PROTECTION IF DUSTS ARE FORMED.
EYE/TYPE..... TIGHTLY FITTING SAFETY GOGGLES (CHEMICAL GOGGLES).
FOOTWEAR/TYPE..... NO SPECIAL REQUIREMENTS.
CLOTHING/TYPE..... NO SPECIAL REQUIREMENTS.
OTHER/TYPE..... N.AV.
ENGINEERING CONTROLS..... GENERAL VENTILATION.
GENERAL HYGIENE CONSIDERATIONS... HANDLE IN ACCORDANCE WITH GOOD INDUSTRIAL HYGIENE AND SAFETY PRACTICE. WHEN USING, DO NOT EAT, DRINK OR SMOKE. HANDS AND/OR FACE SHOULD BE WASHED BEFORE BREAKS AND AT THE END OF THE SHIFT. .

Section 09: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE..... POWDER OR FINE GRANULES.
ODOUR..... ODOURLESS.
ODOUR THRESHOLD..... N.AV.
VAPOUR PRESSURE (MMHG)..... N.AP.
VAPOUR DENSITY (AIR=1)
BY VOLUME..... N.AP.
BY WEIGHT..... N.AP.
EVAPORATION RATE..... N.AP.
BOILING POINT..... N.AP.
PH..... 8.5 - 10.5 (5 %(M), 20 °C).
SPECIFIC GRAVITY (WATER=1)..... N.AV.
BULK DENSITY..... 1,400 - 1,600 KG/M3 .
SOLUBILITY IN WATER (% W/W)..... 220 G/L (20 °C).
COEFFICIENT OF WATER/OIL DIST..... PARTITIONING COEFFICIENT N-OCTANOL/WATER (LOG POW): -4 (25 °C) (OECD GUIDELINE 107) .

Section 10: STABILITY AND REACTIVITY

CHEMICAL STABILITY:
YES..... STABLE.
NO, WHICH CONDITIONS?
CONDITIONS TO AVOID..... CONTACT WITH ICOMPATIBLES.
COMPATABILITY WITH OTHER
SUBSTANCES:
YES
NO, WHICH ONES?..... REACTS WITH OXIDIZING AGENTS. REACTS WITH ACIDS. REACTS WITH NITRITES.
REACTIVITY CONDITIONS..... CONTACT WITH INCOMPATIBLES.
HAZARDOUS PRODUCTS OF SULPHUR DIOXIDE.
DECOMPOSITION
HAZARDOUS POLYMERIZATION..... WILL NOT OCCUR.

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Section 11: TOXICOLOGICAL INFORMATION

EXPOSURE LIMIT OF MATERIAL
 LC 50 OF MATERIAL, SPECIES & ROUTE.. SEE SECTION 02.
 LD 50 OF MATERIAL, SPECIES & ROUTE.. SEE SECTION 02.
 CARCINOGENICITY OF MATERIAL..... N.AV.
 REPRODUCTIVE EFFECTS..... N.AV.
 MUTAGENICITY..... THE SUBSTANCE WAS NOT MUTAGENIC IN BACTERIA. THE SUBSTANCE WAS NOT
 MUTAGENIC IN MAMMALIAN CELL CULTURE. THE SUBSTANCE WAS NOT
 MUTAGENIC IN A TEST WITH MAMMALS. .
 TERATOGENICITY..... NO INDICATIONS OF A DEVELOPMENTAL TOXIC / TERATOGENIC EFFECT WERE
 SEEN IN ANIMAL STUDIES.
 IRRITANCY OF MATERIAL..... RABBIT: NON-IRRITANT (DRAIZE TEST). RABBIT: NON-IRRITANT (DRAIZE TEST).
 SENSITIZING CAPABILITY OF MATERIAL. ORAL ADMINISTRATION AND/OR INHALATION BY SENSITIVE PERSONS CAN LEAD
 TO AN OVER SENSITIVE REACTION. .
 SYNERGISTIC MATERIALS..... N.AV.

Section 12: ECOLOGICAL CONSIDERATIONS

ECOLOGICAL INFORMATION..... BIODEGRADATION EVALUATION: INORGANIC PRODUCT WHICH CANNOT BE
 ELIMINATED FROM WATER BY BIOLOGICAL PURIFICATION PROCESSES. .
 BIOACCUMULATION: NO SIGNIFICANT ACCUMULATION IN ORGANISMS IS
 EXPECTED AS A RESULT OF THE DISTRIBUTION COEFFICIENT OF
 N-OCTANOL/WATER (LOG POW). . CHEMICAL OXYGEN DEMAND (COD):
 (CALCULATED) 125 MG/G. . OTHER ECOTOXICOLOGICAL ADVICE: HIGHER
 CONCENTRATIONS OF THE SUBSTANCE MAY CAUSE A STRONG CHEMICAL
 OXYGEN CONSUMPTION IN BIOLOGICAL SEWAGE-TREATMENT PLANTS AND/OR
 WATERWAYS. INHIBITION OF DEGRADATION ACTIVITY IN ACTIVATED SLUDGE IS
 NOT TO BE ANTICIPATED DURING CORRECT INTRODUCTION OF LOW
 CONCENTRATIONS. .

Section 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL..... DISPOSE IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS.

Section 14: TRANSPORT INFORMATION

TDG CLASSIFICATION..... NOT REGULATED.
 PROPER SHIPPING NAME..... N.AP.
 UN NUMBER..... N.AP.
 PACKING GROUP..... N.AP.
 SPECIAL SHIPPING INSTRUCTIONS..... NOT REGULATED.

Section 15: REGULATORY INFORMATION

CPR COMPLIANCE..... THIS PRODUCT HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD
 CRITERIA OF THE CPR AND THE MSDS CONTAINS ALL THE INFORMATION
 REQUIRED BY THE CPR.
 WHMIS CLASSIFICATION..... D2A.
 DSL..... LISTED.

Section 16: OTHER INFORMATION

N.AP.=NOT APPLICABLE
 N.AV.=NOT AVAILABLE
 OTHER INFORMATION..... THE DATA IN THIS MSDS RELATES ONLY TO THE SPECIFIC MATERIAL
 DESIGNATED HEREIN AND DOES NOT RELATE TO USE IN COMBINATION WITH
 ANY OTHER MATERIAL OR IN ANY PROCESS. THIS DATA IS OFFERED IN GOOD
 FAITH AS TYPICAL VALUES AND NOT AS PRODUCT SPECIFICATIONS. NO
 WARRANTY, EITHER EXPRESSED OR IMPLIED, IS HEREBY MADE. THE
 RECOMMENDED INDUSTRIAL HYGIENE AND SAFE HANDLING PROCEDURES ARE
 BELIEVED TO BE GENERALLY APPLICABLE. HOWEVER, EACH USER SHOULD
 REVIEW THESE RECOMMENDATIONS IN THE SPECIFIC CONTEXT OF THE
 INTENDED USE AND DETERMINE WHETHER THEY ARE APPROPRIATE.